

10/533746
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ENGLISH TRANSLATION OF EXAMINATION REPORT ANNEX

NEW CLAIMS:

1) A formulation comprising:

5 a) at least one nitrogen-free polysiloxane compound,
 b) at least one polyamino- and/or polyammonium-polysiloxane
 compound b1) which is selected from polysiloxane compounds which
 contain at least one unit of the formula (I):

10

-[Q-V]-

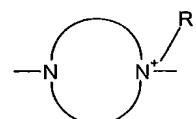
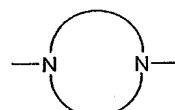
(I)

in which Q is selected from the group consisting of:

15

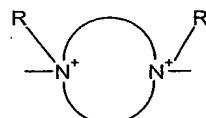
-NR-,
 -NR⁺R₂-

a saturated or unsaturated diamino-functional heterocycle of the
 formulae:



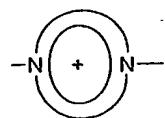
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and



, and also

an aromatic diamino-functional heterocycle of the formula:



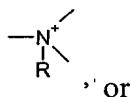
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- 69 -

a trivalent radical of the formula:



a trivalent radical of the formula:



, or

5 a tetravalent radical of the formula



in which R is in each case hydrogen or a monovalent organic radical,

where Q is not bonded to a carbonyl carbon atom,

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V is at least one constituent which is selected from the group consisting of V¹, V² and V³, where

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V² is selected from divalent, straight-chain, cyclic or branched, saturated, unsaturated or aromatic hydrocarbon radicals which have up to 1000 carbon atoms (not counting the carbon atoms of the polysiloxane radical Z² defined below) and may optionally contain one or more groups selected from

20

-O-, -CONH-,

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-CONR²-, in which R² is hydrogen, a monovalent, straight-chain, cyclic or branched, saturated, unsaturated or aromatic hydrocarbon radical which has up to 100 carbon atoms, may contain one or more groups selected from -O-, -NH-, -C(O)- and -C(S)-, and may optionally be substituted by one or more substituents selected from the group consisting of a hydroxyl group, an optionally substituted heterocyclic group preferably containing one or more nitrogen atoms, amino, alkylamino, dialkylamino, ammonium, polyether radicals and polyether

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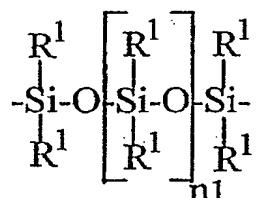
ester radicals, where, when a plurality of -CONR² groups is present, they may be the same or different,

-C(O)- and -C(S)-,

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the V² radical may optionally be substituted by one or more hydroxyl groups, and

the V² radical contains at least one -Z²- group of the formula



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in which

R¹ may be the same or different and is selected from the group consisting of: C₁ to C₂₂ alkyl, fluoro(C₁-C₁₀)alkyl and C₆-C₁₀ aryl, and

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n_1 = from 20 to 1000;

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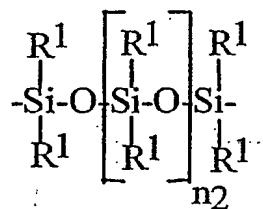
V¹ is selected from divalent, straight-chain, cyclic or branched, saturated, unsaturated or aromatic hydrocarbon radicals which have up to 1000 carbon atoms and may optionally contain one or more groups selected from

-O-, -CONH-,

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-CONR²-, in which R² is as defined above, where the R² groups in the V¹ and V² groups may be the same or different,

-C(O)-, -C(S)- and -Z¹-, where -Z¹- is a group of the formula



in which

R¹ is as defined above, where the R¹ groups in the V¹ and V² groups may be the same or different, and

5 n₂ = from 0 to 19,

and the V¹ radical may optionally be substituted by one or more hydroxyl groups, and

10 V³ is a trivalent or higher-valency, straight-chain, cyclic or branched, saturated, unsaturated or aromatic hydrocarbon radical which has up to 1000 carbon atoms, may optionally contain one or more groups selected from

15 -O-, -CONH-, -CONR²-, in which R² is as defined above, -C(O)-, -C(S)-, -Z¹- which is as defined above, -Z²- which is as defined above and Z³, where Z³ is a trivalent or higher-valency organopolysiloxane unit, and

20 may optionally be substituted by one or more hydroxyl groups,

where, in said polysiloxane compound, in each case one or more V¹ groups, one or more V² groups and/or one or more V³ groups may be present,

25 with the proviso

— that said polysiloxane compound contains a plurality of V² groups,

- that said polysiloxane compound contains at least one V¹, V² or V³ group which contains at least one -Z¹-, -Z²- or Z³ group, and
- that the tri- and tetravalent Q radicals either serve to branch the main chain formed from Q and V, so that the valencies which do not serve for bonding in the main chain bear further branches formed from -[Q-V]- units, or the tri- and tetravalent Q radicals are saturated with V³ radicals within a linear main chain without formation of a branch,

and wherein the positive charges resulting from ammonium groups are neutralized by organic or inorganic acid anions, and acid addition salts thereof,

and optionally at least one amino- and/or ammonium-polysiloxane compound b2)

c) optionally one or more silicone-free surfactants,

d) optionally one or more coacervate phase formation agents,

e) optionally one or more carrier substances.

2) The formulation as claimed in claim 1, characterized in that it contains, based on the total amount of components a) and b), from 5 to 99% by weight of component a) and from 1 to 95% by weight of component b).

3) The formulation as claimed in claim 1 or 2, in which the component e) is selected from solid carrier substances f) and/or liquid carrier substances g).

4) The formulation as claimed in one of claims 1 to 3, characterized in that it contains, based on 100 parts by weight of components a) and b), from 0 to 1500 parts by weight of components c), d) and e).

5) The formulation as claimed in one of claims 1 to 4, characterized in that it contains, based on 100 parts by weight of components a) and b), from 0 to 70 parts by weight of component c).

6) The formulation as claimed in one of claims 1 to 5, characterized in that it contains, based on 100 parts by weight of components a) and b), from 0 to 10 parts by weight of component d).

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7) The formulation as claimed in one of claims 1 to 6, characterized in that it contains, based on 100 parts by weight of components a) and b), from 0 to 710 parts by weight of component f).

10 8) The formulation as claimed in one of claims 1 to 7, characterized in that it contains, based on 100 parts by weight of components a) and b), from 0 to 710 parts by weight of component g).

9) The formulation as claimed in one of claims 1 to 8, characterized in that

15 component a) is at least one constituent which is selected from the group consisting of: straight-chain, cyclic, branched and partially crosslinked polyorganosiloxanes.

10) The formulation as claimed in one of claims 1 to 9, characterized in that the

20 amino- and/or ammonium-polysiloxane compound b2) is a polysiloxane compound which contains amino and/or ammonium groups in the pendent groups of a polyorganosiloxane main chain.

11) The formulation as claimed in one of claims 1 to 10, characterized in that the

25 silicone-free surfactant as component c) is at least one constituent which is selected from nonpolymerized, organic, quaternary ammonium compounds.

12) The formulation as claimed in one of claims 1 to 11, characterized in that the

30 coacervate phase formation agent as component d) comprises at least one constituent which is selected from cationic, silicone-free polymer compounds.

13) The formulation as claimed in one of claims 3 to 12, characterized in that the

solid carrier substance f) is at least one constituent which is selected from the group of the water-soluble compounds which have a solubility in water of at least 100 grams/liter at 20°C.

- 5 14) The formulation as claimed in one of claims 3 to 13, characterized in that the liquid carrier substance g) is at least one constituent which is selected from the group consisting of water and water-miscible organic solvents.
- 10 15) The formulation as claimed in one of claims 1 to 14, characterized in that it is solid or liquid at 40°C.
- 15 16) A process for preparing the formulation as claimed in one of claims 1 to 15, which comprises the steps of:
 - a) mixing components a) and b) to give a homogeneous premixture, and
 - b) optionally introducing components c), d) and/or e).
- 20 17) The use of the formulation as claimed in one of claims 1 to 15 in cosmetic formulations, in laundry detergents or for the surface treatment of substrates.
- 25 18) The use of the formulation as claimed in one of claims 1 to 15 and 17 for fiber treatment or fiber finishing.
- 19) The use of the formulation as claimed in one of claims 1 to 15, 17 and 18 as a formulation for the treatment of textiles and other natural and synthetic fiberlike materials including paper.
- 20) The use of the formulation as claimed in one of claims 1 to 15, 17, 18 and 19 as a softener.